NOAA FISHERIES SERVICE

NORTHEAST REGIONAL OFFICE

Sector / NMFS Data Report Guide
Rev. 1.0

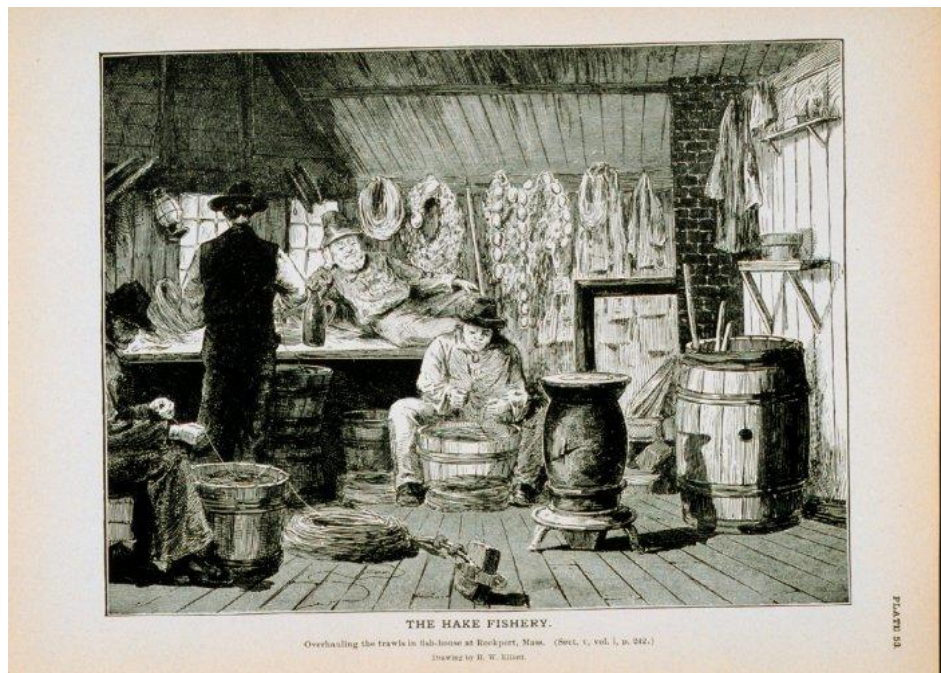# Fishing Year 2011

THE HAKE FISHERY.

Overhauling the trawls in fish-house at Rockport, Mass. (Sect. 1, vol. i, p. 242.)
Drawing by H. W. Elliott.

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Introduction

NOAA's National Marine Fisheries Service (NMFS) has developed standards for the sector manager report, which is listed as a requirement for sectors in Amendment 16 to the Northeast (NE) Multispecies Fishery Management Plan (FMP).

It is the responsibility of individual sectors to submit weekly reports to NMFS stating the remaining balance of Allocated Catch Entitlement (ACE) for each sector based upon regulated species landings and discards of vessels participating in that sector and any compliance or enforcement concerns. To help with this task, use the Sector /NMFS Data Report.

Using the Sector / NMFS Data Report

The Sector / NMFS Data Report lets you see at a glance:

- Summary catch and ACE status data for your sector and every sector based on uploaded Sector Manager Reports. The purpose is to let you compare your numbers with those numbers that NMFS has, and to use the report as a basis to begin investigating if any numbers vary widely.

- Detailed *stock-level* information about landings, discards, and other data based on their uploaded reports, and to see how this information differs from information that NMFS has for their sector. This stock-level information shows *only* the data that differ between your sector and NMFS. When your data and NMFS data are identical, those data do not appear on the report.

Note: As a sector manager, you should receive the Sector / NMFS Data Report as an e-mail attachment by the close of the business day on Thursday. If for some reason you do not receive the report by then, contact NMFS.

How the Report is Organized

The Sector/NMFS Data Report is a single MS Excel file that contains several spreadsheets, each accessible by its own tab. These spreadsheets are listed in Table 1.
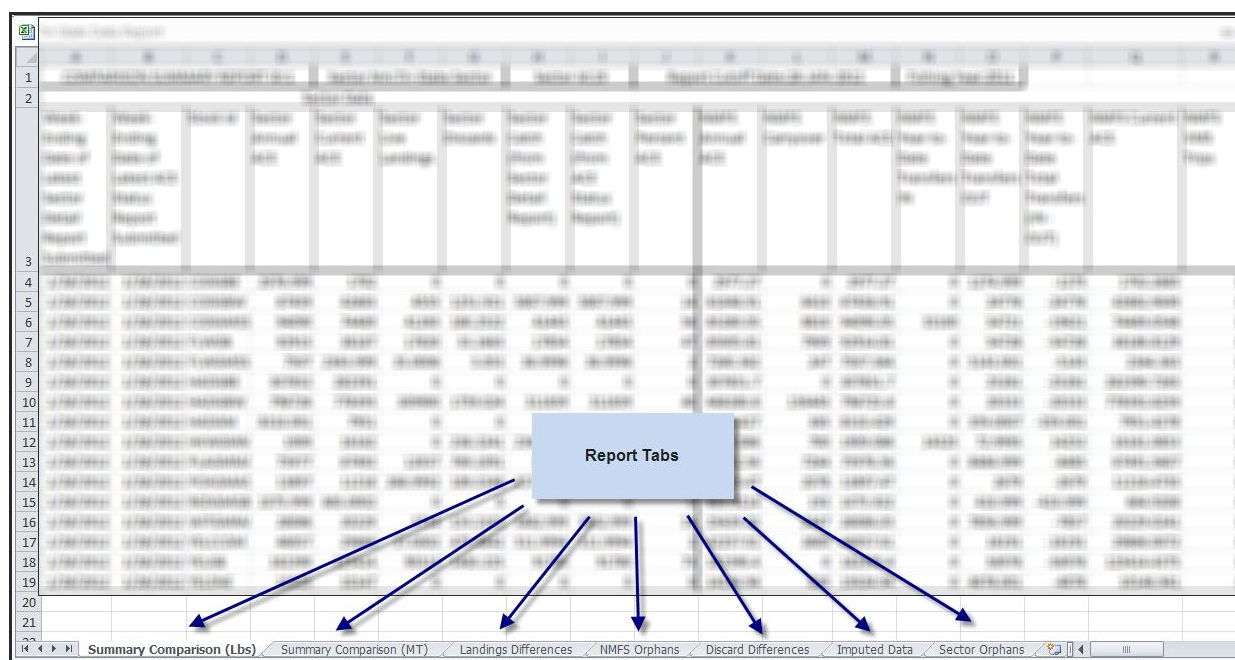
Table 1: Data Report Sheets

Sheet	Sheet Contents	Information Level
Summary Comparison (Lbs)	Fishing-year-to-date totals (in pounds) for your sector.	Stock-level
Summary Comparison (MT)	Fishing-year-to-date totals (in metric tons) for your sector.	Stock-level
Landings Differences	Each stratum (area, gear, and mesh) in the current week that has a difference in landings reported by NMFS and landings reported by the sector.	Stock-level

Sheet	Sheet Contents	Information Level
NMFS Orphans	NMFS records of trips, by stock, that your sector does not have.	Stock-level
Discard Differences	Each stratum (area, gear, and mesh) in the current week that has a difference in discard poundage recorded by NMFS and discards recorded by the sector.	Stock-level
Imputed Trips	Trips in your sector since the start of the fishing year that currently have imputed pounds assessed.	Trip-level
Sector Orphans	Sector records of trips, by stock, that NMFS does not have.	Stock-level

Note: There are two Summary Comparison sheets, one for totals displayed in *pounds* and one for totals displayed in *metric tons*. This weight expression is the only difference between the two sheets. This document discusses the Summary Comparison (Lbs) sheet.

Click the appropriate tab at the bottom of the Excel workbook to access each of the sheets, as in Figure 1.

Figure 1: Sector / NMFS Data Report -- Tabs

Each of the following sections of this document describes these different collections of data.

Summary Comparison

The Summary Comparison sheet shows fishing-year-to-date totals for your sector. The cumulative totals include landings, discards, catch, imputations, and ACE transfers. See Figure 2 and Figure 3 for an example of what the sheet displays (both figures comprise the entire sheet).

Figure 2: Summary Comparison Sheet – Sector Data

Figure 3: Summary Comparison Sheet - NMFS Data

Note: The term "Annual ACE" in this report replaces the term "Original ACE".

How to Read the Summary Comparison Sheet

The Summary Comparison sheet is divided into two main parts:

- Sector data

  Landings data from the Sector Detail and Sector ACE Status reports that your sector has submitted to NMFS.

- NMFS data

  Landings data that include the number of trips and total live weight landings to date for a particular stock, categorized by data source. Sources include VMS catch reports, dealer reports, VTRs, observer reports, and permits.

See Table 2 immediately following for detailed explanation of each column in the Summary Comparison sheet.

Table 2: Summary Comparison Sheet

Field	Description
Week-Ending Date of Latest Sector Detail Report Submitted	Date at which the sector is due to submit its weekly Sector Detail Report to NMFS.
Week-Ending Date of Latest ACE Status Report Submitted	Date at which the sector is due to submit its weekly Sector ACE Status Report to NMFS.
Stock Id	Unique stock identifier as taken from the Species field in the VTR and computed against the species-to-stock-area conversion table.
Sector Data (from Sector Reports)	
Sector Annual ACE	Sector's record of its Annual Catch Entitlement (ACE) as derived from the catch history of each of its individual members and the current annual catch limits for each stock. This is the maximum amount of each Northeast multispecies stock that the sector may catch during the fishing year (May 1- April 30).
Sector Current ACE	Sector's record of its **Sector Annual ACE** including any ACE transfers into or out of the sector. ACE transfers are only valid for the current fishing year.
Sector Live Landings	Data submitted by the sector for the sum of live weights reported for each trip for a particular stock for the entire sector.
Sector Discards	Data submitted by the sector for the sum of discards reported for each trip in a sector for a particular stock. Includes both the amount of observed discards and the amount of discards calculated using the appropriate discard ratio for unobserved trips.

Field	Description
Sector Catch (From Sector Detail Report)	Data submitted by the sector for the sum of the ACE deduction reported for each trip for a particular stock. ACE deduction is the sum of the **Live Landings** and **Discards** for a given trip. **Catch** should be equivalent to the sum of the **Live Landings** and **Discard** fields in the columns to the left. **Live Landings**, **Discards**, and **Catch** will be reflected in the Sector Detail Report also.
Sector Catch (From ACE Status Report)	Same as **Harvested ACE** in the Sector Manager ACE Status Report. Harvested ACE is the sum of **Live Landings** and **Discards** for a particular stock as used from data in the Sector Manager Detail Report. The **Catch** from the ACE Status Report should be equal to the **Catch** from the Sector Detail Report in the column to the left. In this respect it acts as a check of the data.
Sector Percent ACE	Percentage of the stock's current ACE harvested to date by the sector. **Percent ACE** is **Catch** plus **Discards** from the Sector Detail Report *divided by* the sector-reported **Current ACE** (in the columns to the left). **Percent ACE** should equal **Percent Harvested ACE to Date** in the Sector Manager ACE Status Report.
NMFS Data (extracted from SIMM)	
NMFS Annual ACE	NMFS record of the Annual Catch Entitlements (ACE) as derived from the catch history of each of the sector's individual members and the current annual catch limits for each stock. This is the maximum amount of each Northeast multispecies stock that the sector may catch during the fishing year (May 1- April 30).
NMFS Carryover	NMFS record of the unused ACE from the previous fishing year "carried over" to the current fishing year. By law, a sector can carry over up to 10% of the **Annual ACE** for a stock. (However, a sector cannot carry over any additional ACE that was leased to it during the previous fishing year.)
NMFS Total ACE	**NMFS Annual ACE** plus **NMFS Carryover**.
NMFS Year-to-Date Transfers IN	NMFS's record of transfers of ACE for each stock into the sector. This number represents the year-to-date transfer total.
NMFS Year-to-Date Transfers Out	NMFS's record of transfers of ACE for each stock to other sectors. This number represents the year-to-date transfer total.
NMFS Year-to-Date Total Transfers (IN – OUT)	NMFS's record of the total amount of transfers, both in and out of the sector, of each stock. Negative number indicates that more stock has been transferred out than transferred in.
NMFS Current ACE	NMFS's record of the **Sector Annual ACE** including any ACE transfers into or out of the sector. ACE transfers are only valid for the current fishing year.
VMS Trips	Number of trips reported from VMS declarations. Used by NMFS only when neither a VTR nor dealer report exists for a trip.
NMFS VMS Landings	Landings reported on the VMS Catch Report. Used by NMFS only when neither a VTR nor dealer report exists for a trip.

Field	Description
VTR Trips	Number of trips reported from the VTR that recorded catch with this stock. Used when there is a VTR but no Dealer report.
NMFS VTR Landings	Landings of this stock reported on the VTR. Used when there is a VTR but there is no matching Dealer report.
Dealer Trips	Number of trips reported from the Dealer report that recorded catch with this stock. Used when a dealer has reported but no VTR exists.
NMFS Dealer Landings	Landings reported on the Dealer report. Used when there is a dealer report but no matching VTR. Stock ID is determined from stock area and other information provided in the VMS trip declaration or VMS catch report.
NMFS VTR + Dealer Matches Trips	Dealer-reported trips and vessel-reported trips match.
NMFS VTR + Dealer Matches Landings	Dealer-reported landings and vessel-reported landings match. The stock ID is from the VTR. These VTR/Dealer matches provide the most reliable indicators of trip data.
NMFS Bait or Home Consumption	Landings of this stock recorded on the VTR as bait or home consumption. Counts against the sector ACE.
NMFS Estimated Trips	Data from VMS records only that indicate a trip has occurred; however, there are no matched catch reports, VTRs, or Dealer reports for this trip.
NMFS Estimated Landings	Data from VMS records only that indicate a trip has occurred; however, there are no matched catch reports, VTRs, or Dealer reports for this trip. Therefore, this is imputed data, and is used as a "placeholder" in the **Percent ACE** and **Catch** estimates.
NMFS Discards	Sum-to-date per stock of discards for all observed trips added to discards estimates for unobserved trips, as obtained from NMFS databases. The discard data for unobserved trips are based on a calculated estimate. This estimate is calculated in the same way for NMFS and for sectors, so the numbers should be identical.
NMFS Catch	Total catch for a particular stock, as found in NMFS records. Total catch equals the sum of the NMFS landings data plus discards. **Catch** may include imputed data as a placeholder.
NMFS Percent ACE	NMFS determination of the stock's current ACE percentage for the sector. Calculated by dividing **Catch** plus **Discards** by **Current ACE**. This may include imputed data as a placeholder.
Difference in ACE Percentages (NMFS – Sector)	Compares sector **Percent ACE** with NMFS' **Percent ACE**. Positive number (no minus sign) means that NMFS has a higher recorded **Percent ACE** than you reported. Negative number (minus sign) means that you have a higher recorded **Percent ACE** than NMFS has.

Note: If you need to communicate with NMFS personnel about the week's Data Report, reference the sheet by the **Summary Comparison Report ID** number at the top of the sheet.

How Do I Use the Summary Comparison Sheet?

The Sector/NMFS Summary Comparison sheet is set up so you can compare your data with NMFS data side-by-side. The data on this report are cumulative from the start of the fishing year by stock. In other words, you are looking at relatively large numbers and, therefore, you should be looking for *larger* trends. You can get more specific information at the stock level from the other sheets.

Is there anything particular that you should look for in the Sector/NMFS Data Report? All of the data are useful, but make sure to look at the following:

- Annual ACE
- Current ACE
- Percent ACE
- Sector Detail Catch Vs. ACE Status Catch
- Differences in Percentage (NMFS-Sector)
- VMS, VTR, and Dealer Trips / Landings
- Estimated Trips / Landings

Annual ACE

The value of **Annual ACE** in your data should exactly match the value of **Annual ACE** in NMFS data. This value is the basis upon which all the other ACE numbers depend. If these values are different, one explanation is that you did not record a mid-season adjustment by NMFS to a stock. Another might be a carryover value is missing.

Current ACE

The value of **Current ACE** in your data should exactly match the value of **Current ACE** in NMFS data. If these values are different, one possibility is that a problem exists with recording ACE transfers.

Percent ACE

This is your ACE expressed as a percentage. If the value of **Percent ACE** in your sector data differs by more than a percentage point from the value of **Percent ACE** in NMFS data, this should serve as the basis for further investigation. For example, if your **Percent ACE** is 27% and the NMFS **Percent ACE** is 31%, you should take a closer look. Start by looking at **Catch** and **Discards** numbers for that stock.

Also, you should track the rate by which the ACE percentage increases for each stock week-to-week so that your sector does not approach the ACE threshold for any stock too rapidly.

Sector Detail Catch vs. ACE Status Catch

Make sure that the **Catch** values in your Sector Detail Report match the **Catch** values in your ACE Status Report. If these numbers disagree by more than a few pounds, examine your methods for preparing your sector reports.

Differences in Percentage (NMFS – Sector)

Sort the values in this column in descending order (highest to lowest). If any value is above 3 percent, as a "rule of thumb" you should prioritize this investigation.

For example, suppose the **Percent ACE** values between the sector and NMFS for HADGM differ by 6 percent, and that there is a large discrepancy between the sector **Catch** total (58000) and NMFS **Catch** total (98000) for HADGM.

Also suppose that NMFS has recorded a total of 81000 for **VTR + Dealer Matches** for HADGM. This total would greatly exceed the entire **Catch** total that your sector has, and **VTR + Dealer Matches** are the most reliable data. This suggests, at a minimum, that you might not be receiving VTRs from the vessels that regularly fish for Gulf of Maine haddock or that data are being dropped from your reports.

VMS, VTR, and Dealer Trips / Landings

Trips and landings are best documented when the VTR(s) for the trip match up with the dealer records for that same trip. In other words, you want to see as many trips / landings fall under the **VTR+Dealer Matches** category as possible.

Estimated Trips / Landings

Estimated data allows NMFS to anticipate the data that has not yet been received. Because of time lags in submission and processing, a VTR or dealer report may not yet "exist" in the NMFS databases. This is the reason imputed data is used as a placeholder. As actual data become available, those data replace the imputed data.

Estimated data are based on a VMS declaration, which lacks any associated catch information. In this case, an estimate of what the trip catch would have likely yielded, based on stat area and vessel history, is used.

Sort the values in **Estimated Data** by descending order using the number of trips, and again by using the amount of estimated pounds. A high number for either category means that NMFS is not receiving the two most important pieces of documentation for trips: VTRs and dealer records. Also, refer to the **Sector Orphans** sheet, which shows you sector trips that NMFS does not yet have recorded.

Landings Differences

The Landings Differences sheet shows each stratum (area, gear, and mesh) in the current week that has a difference in landings reported by NMFS and landings reported by the sector. See Figure 4 for an example of the Landings Differences sheet.

Figure 4: Detail Report - Landings Differences

See Table 3 immediately following for detailed explanation of each column in the Landings Differences sheet.

Table 3: Landings Differences Field Descriptions

Field	Description
Sector ID	Number that uniquely identifies the sector for the NMFS data systems.
Permit	The Vessel Permit Number (VPN) of the vessel that landed the fish. Vessel permit number assigned by the Northeast Regional Office's Vessel Permit System (VPS).
Docid	Unique idenitfier for a trip, which may include one or more VTRs. Generated by NMFS at the time that VTRs are entered into data systems.
Stock_Id	Unique stock identifier as taken from the Stock Area field in the VTR and computed against the species-to-stock-area conversion table.
Vtrserno	Unique, eight-digit number in the top right portion of the first page of the VTR. Serves as universal trip ID. Can also be the eVTR number in 14-digit format.
Negear	3-character code to indicate the standard Northeast gear code used in the observer and commercial fisheries databases.
Mesh_Cat	Mesh category: • "ELM" = Extra Large Mesh (gillnet gear equal to or greater than 8 inches) • "LM" = Large Mesh (gillnet gear less than 8 inches) • "NA" = Not applicable (all other meshes) The VTR has the mesh size for each sub-trip.
Date_Sold	The date of first sale of a sector trip's catch to a seafood dealer. Subsequent sales will be summed to this date to form a complete trip. This is the date for which the discard ratio is effective for the trip.

Field	Description
NMFS Pounds	The live weight that NMFS has recorded for this stock
SDR Pounds	The live weight that the sector has reported for this stock in the Sector Manager Detail Report
NMFS vs. SDR Difference	The difference between the live weight that NMFS has for this stock and the live weight that the Sector Manager Detail report has. • Positive number (no minus sign) means that NMFS has more recorded pounds than the Detail report has. • Negative number (minus sign) means that the Detail report has more recorded pounds than NMFS has.
Species Code	The 6-digit Integrated Taxonomic Information System (ITIS) serial number for a species. See the SPECIES_ITIS_NE table for a description of the codes.

How Do I Use the Landings Differences Sheet?

There are two general concerns to be aware of when looking at landing differences:

- **How old the records are** — Investigate older records first, if possible, because as records age it can be harder to track down information.

- **Largest differences between your data and NMFS data** — Fixing the largest discrepancies as they arise is beneficial because this makes reconciling your totals at the end of the fishing year a much more manageable task.

For example, the column **NMFS vs. SDR Difference** lets you troubleshoot the biggest differences:

1. Open the Landings Differences sheet.
2. Use the Excel "Sort" function to arrange the contents by the column **NMFS vs. SDR Difference**. Figure 4 shows the landings differences sorted from largest to smallest.
3. Start looking at the biggest differences, in this case over 1000 pounds, as in Figure 5:

Figure 5: Detailed Look at Landings Differences

Permit	Docid	Stock_Id	Vtrserno	Negear	Mesh_Cat	Date_Sold	NMFS Pounds	SDR Pounds	NEFS vs. SDR Diff	Species Code
	3658371	HADGBE	1 589	OTF	NA	19-JUN-11	1494	10097	7271	164744
	3658371	HADGBW	1 589	OHS	NA	19-JUN-11	22417	15146	3552	164744
	3751200	HADGBW	1 003	OTF	NA	19-SEP-11	8789	5237	1993	164744
	3751200	HADGM	1 003	OTF	NA	19-SEP-11	377	3928	1212	164744

Notice that the first two records have the *same* VTR number but have *different* gear codes. This immediately suggests a problem because a gear change on the same trip requires a separate VTR. This is a likely place to begin investigating. For example, it is possible that either your sector or NMFS entered the gear type incorrectly.

➢ **Other Things to Look For in the Landings Differences Sheet**

- Make sure that sub-trips (multiple VTRs on a single trip) report to the same **Docid**.

- If **SDR Pounds** has a "0" value, this is a "NMFS orphan". See the section NMFS Orphans for more information.
- If **NMFS Pounds** has a "0" value, this is a "sector orphan". See the section Sector Orphans for more information.
- **NMFS vs. SDR Difference** values:
  - o If the value is a negative number, NMFS has a record of more pounds than your sector has.

    Your record of a trip might be missing or incomplete; you should check your dealer records particularly. Also, you may have apportioned live weight incorrectly, or not accounted for non-dealer data such as bait or home consumption.
  - o If the value is a positive number, your sector has a record of more pounds than NMFS is.

    In this case, NMFS may not have processed the trip yet, or has not received the data, or the data is mismatched.
  - o A difference of 1 pound is most likely a rounding issue and is not an urgent matter.
- Check to ensure that **Date_Sold** matches up with the date on the VTR. For example, a dealer could sell part of the catch from one VTR one day, and then sell the rest of the catch the next day.

NMFS Orphans

A "NMFS orphan" means that NMFS has a record of a trip that your sector does not have. See Figure 6 for an example of what the NMFS Orphans sheet looks like.

Figure 6: NMFS Orphans Sheet

See Table 4 immediately following for detailed explanation of each column in the Landings Differences sheet.

Table 4: NMFS Orphans Field Descriptions

Field	Description
Sector_Id	Number that uniquely identifies the sector for the NMFS data systems.
Stock_Id	Unique stock identifier as taken from the Stock Area field in the VTR and computed against the species-to-stock-area conversion table.
Gearcode	3-character code to indicate the standard Northeast gear code.
Mesh_Cat	Mesh category: • "ELM" = Extra Large Mesh (gillnet gear equal to or greater than 8 inches) • "LM" = Large Mesh (gillnet gear less than 8 inches) • "NA" = Not applicable (all other meshes) Mesh size is obtained from the VTR.
Nmfs_Docid	Unique idenitfier for a trip, which may include one or more VTRs. Generated by NMFS at the time that VTRs are entered into NMFS data systems.
Spplivlb	Live weight as recorded by the dealer.
Species Code	The 6-digit Integrated Taxonomic Information System (ITIS) serial number for a species. See the SPECIES_ITIS_NE table for a description of the codes.
Min Serial Num	Lowest VTR number for the trip. Some trips have more than one VTR, some have a single VTR only.
Permit Num	The Vessel Permit Number (VPN) of the vessel that landed the fish. Permits are assigned by the Northeast Regional Office's Vessel Permit System (VPS). Reserved VPNs include: • 000000=no permit or no vessel, check hull number; • 190998=Unknown undertonnage vessel; • 390998=Unknown tonnage vessel
Max Date Sold	The most recent date that the sector trip's catch was sold (if there are multiple **Date Sold** values associated with this trip).

How Do I Use the NMFS Orphans Sheet?

A good area to concentrate on initially is the part of the report that has data that you can cross-check right away:

- **VTRs** — Use your recordkeeping facilities to check on these VTR numbers. You can sort the contents of the NMFS Orphans sheet by **Min Serial Number**, as in Figure 6. This shows clearly the missing trips by VTR.
- **Date sold** — Check the **Max Date Sold** value for each trip against the records you have already.
- **Permit numbers** — Check with the owner of the vessel to get more information about this trip, including the dealer who handled the catch.

Discard Differences

The Discards Differences sheet shows landings from each stratum (area, gear, and mesh) in the current week that has a difference in discard poundage recorded by NMFS and discards recorded by the sector. See Figure 7 for an example of the Discard Differences sheet.

Figure 7: Discard Differences

See Table 5 immediately following for detailed explanation of each column in the Discard Differences sheet.

Table 5: Discard Differences Field Descriptions

Field	Description
Sector_Id	Number that uniquely identifies the sector for the NMFS data systems.
Permit	The Vessel Permit Number (VPN) of the vessel that landed the fsh. Vessel permit number assigned by the Northeast Regional Office's Vessel Permit System (VPS). Reserved VPNs include: • 000000=no permit or no vessel, check hull number; • 190998=Unknown undertonnage vessel; • 390998=Unknown tonnage vessel
Docid	Unique idenitfier for a trip, which may include one or more VTRs. Generated by NMFS at the time that VTRs are entered into NMFS data systems. Same as **Nmfs_Docid**.
Sp_Stock_Id	Unique stock identifier as taken from the Stock Area field in the VTR and computed against the species-to-stock-area conversion table. Same as **Stock_id**.
Vtrserno	Unique, eight-digit number in the top right portion of the first page of the VTR. Serves as universal trip ID. Could also be the 14-digit eVTR number.
Negear	3-digit code to indicate the standard Northeast gear code used in the observer and commercial fisheries databases.
Mesh_Cat	Mesh category: • "ELM" = Extra Large Mesh (gillnet gear equal to or greater than 8 inches) • "LM" = Large Mesh (gillnet gear less than 8 inches) • "NA" = Not applicable (all other meshes) The VTR has the mesh size for each sub-trip.
Uob_Discards	Unobserved discards as calculated by NMFS when no onboard observers were available for the trip.
Ob_Discards	Discards recorded by onboard observers. This is the best discard data available.
Deal_Codes	The Dealer codes for catch that is not part of the dealer record (Spplivlb). Includes: • 00001 SEIZED FOR VIOLATIONS • 00002 SOLD/USED FOR BAIT • 00004 FUTURE SALE • 00006 SUB-LEGAL FISH FOR RESEARCH • 00007 LEGAL SIZED FISH FOR RESEARCH • 00008 LANDED, UNMARKETABLE CATCH (LUMF) • 99998 HOME CONSUMPTION
Nmfs_Discards	The discard poundage that NMFS has computed for this sub-trip.
Sdr_Discards	The discard poundage that your sector has computed for this sub-trip.

Field	Description
Discard_Diff	The difference (in pounds) between what NMFs has computed for discards (**Nmfs_Discards** and what your sector has computed for discards (**Sdr_Discards**). - Positive number = NMFS has recorded more discards than you have - Negative number = You have recorded more discards than NMFS has
Num_Obs_Dups	Duplicate record detected in the Observer database.
Gear_Match	Indicator whether "gear" value is present in Observer data. - Yes = No value for "gear" in the Observer data - No = There is a value for "gear" in the Observer data.
Nd_Kall	NMFS record of kept weight of all species that the dealer has not recorded. (Some examples of this type of catch can be found in **Deal_Code** in this table.)
D_Kall	Dealer record of kept weight of all species from observed and unobserved trips.
Kall	NMFS record of kept weight of all species from observed and unobserved trips. All species landed on a trip are Kall-species.
Date_Sold	Sale day of this catch as reported by the dealer.

How Do I Use the Discard Differences Sheet?

Among the items you can focus on when using the Discard Differences sheet are the following:

- Compare discards — Look for patterns in the **Nmfs_Discard** and **Sdr_Discard** numbers. For example, is the **Discard_Diff** number double that of the **Nmfs_Discard** or **Sdr_Discard** number? That would indicate a duplicate record. Is the number, say, 10 pounds higher or 100 pounds higher? This might indicate a decimal placement error.

- Sort the **Discard_Diff** numbers in descending order — Find out what the highest discrepancies are. Often those discrepancies are from a single trip or sub-trip, or are associated with a single permit number. This could indicate that the discard calculation was applied incorrectly in a specific case.

- Look at **Deal_Code** — When there is a value in the **Deal_Code** field, there should be a corresponding value in **Nd_kall** for the weight of the non-dealer catch. **Nd_kall** plus **D_kall** should equal **Kall**.

- Look for differences in discards when the trip has been observed (**Ob_Discards**). In this case, very likely there has been a simple transcription error because discard ratios are not applied to catch from observed trips.

- If there is a value in **Num_Obs_Dups**, it is an indication that the data in this particular record might not be trustworthy due to a duplicate record in the NMFS Observer database.

Imputed Trips

The Imputed Trips sheet shows all the trips in your sector since the start of the fishing year that are currently based on imputed data.

What Does "Imputed" Mean?

"Imputed" in this case means "estimated." For the multispecies quota monitoring program, NMFS must estimate the total species landings and the statistical areas for groundfish trips if there are no available source data. These source data are the following:

- Dealer report
- VMS multispecies catch report
- Vessel Tracking Report (VTR)

If none of these source data from a trip are available, NMFS estimates the data in order to improve the accuracy of current groundfish stock projections until the trip source records become officially available.

How Are Imputations Calculated?

Calculating imputations involves two basic elements: comparing similar trips and using weighted averages.

Similar Trips

The calculation uses the duration of the trip ("trip length") that the vessel reported to NMFS in the VMS Declaration. This trip length is then compared with trip lengths of groundfish trips in the past ("historical trips") in this sector. These historical trips have either a VTR or a VTR with matched Dealer Reports. If there are enough historical trips to compare, NMFS further narrows the comparison to historical trips that have the following:

- the same vessel permit
- the VMS trip activity code's declared gear
- the VMS trip activity code's broad stock area

The result is a list of historical trips that vary in similarity to the trip reported by the VMS Declaration.
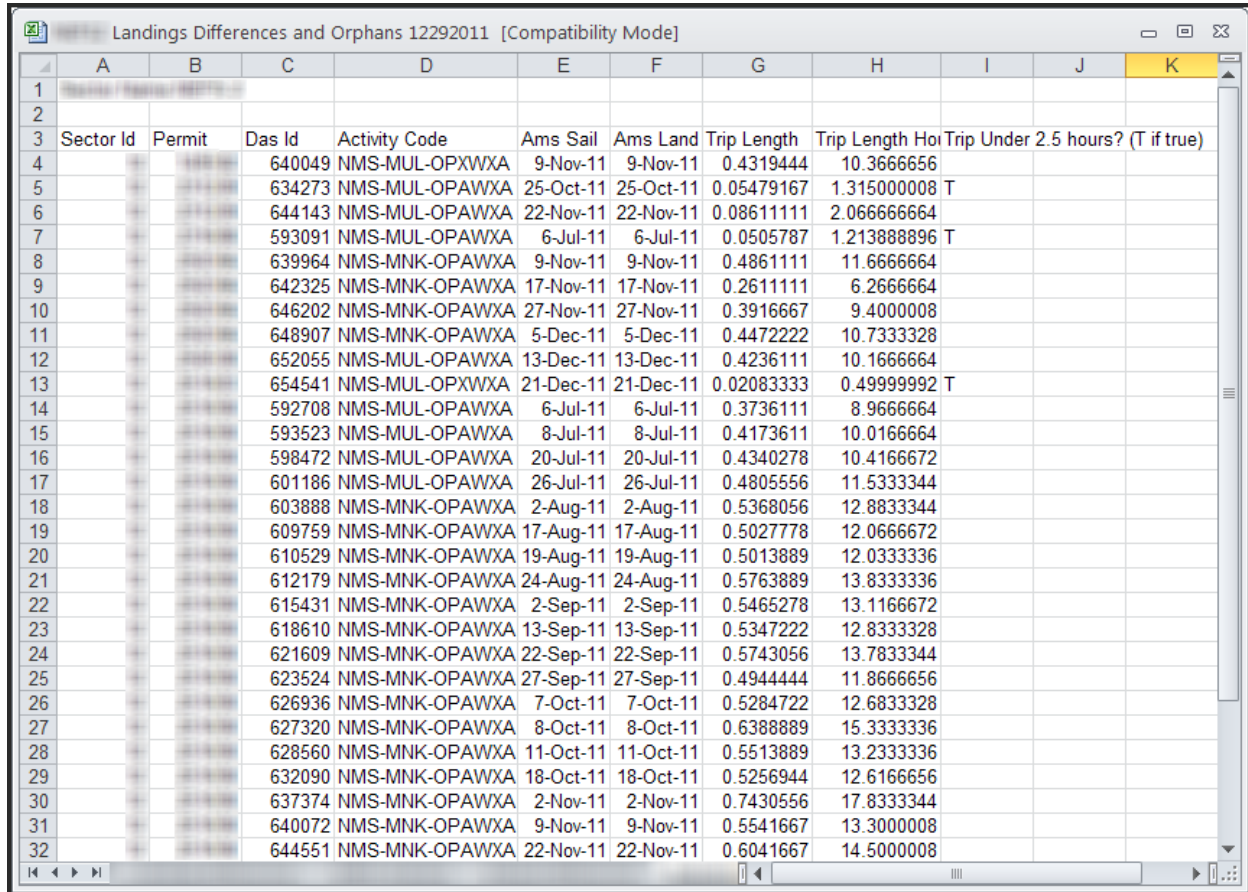
Weighted Averages

A *weighted* average is an average that results from multiplying each component by a factor that reflects that component's greater or lesser importance. For example, if one component of all the components to be averaged is more important than the others, that component is given more mathematical "weight" when averaging takes place.

In this case, NMFS averages historical trips so that the result is an imputed trip with reasonable totals. However, the closer in time that the historical trip is to the imputed trip, the more "weight" that particular historical trip has when all the trips are averaged for the final result.

Imputed Trips Sheet

See Figure 8 for an example of what the Imputed Trips sheet looks like.

Figure 8: Imputed Trips

See Table 6 immediately following for detailed explanation of each column in the Imputed Trips sheet.

Table 6: Imputed Trips Field Descriptions

Field	Description
Sector Id	Number that uniquely identifies the sector to the NMFS data systems.
Permit	The Vessel Permit Number (VPN) of the vessel that landed the fish. Vessel permit number assigned by the Northeast Regional Office's Vessel Permit System (VPS). Reserved VPNs include: • 000000=no permit or no vessel, check hull number; • 190998=Unknown undertonnage vessel; • 390998=Unknown tonnage vessel
Das Id	Days At Sea record identification, which the VMS system uses to uniquely identify a trip.
Activity Code	The VMS activity code that gets logged into the AMS system. (You can change your activity code within AMS if, for example, you took your vessel on a non-fishing trip and crossed the demarcation line.)
Ams Sail	Date that the vessel declared the start of a fishing trip through the VMS system, which sends the information to the AMS system.
Ams Land	Date that the vessel declared the end of a fishing trip to the VMS system, which sends the information to the AMS system.
Trip Length	The time (in days) that the vessel spent on a fishing trip. This value matches the time between the **Ams Sail** and **Ams Land** dates.
Trip Length Hours	The time (in hours) that the vessel spent on a fishing trip. This value matches the time between the **Ams Sail** and **Ams Land** dates.
Trip Under 2.5 Hours?	Indicates if a trip is under 2.5 hours (could indicate a non-fishing trip).

How Do I Use the Imputed Trips Sheet?

The VMS Declaration is one data input stream into the AMS system. The Imputed Trips sheet displays selected fields from AMS, including those fields that indicate trip length.

One way to use the Imputed Trips sheet is to do the following:

1. Sort the sheet contents by the **Ams Land** column in ascending order. In other words, sort the contents so that the oldest trips are listed first. (Always try to clear up the oldest trips first, if possible.)
2. Use the **Permit** and **Activity Code** fields to identify the vessel owner/operator that was involved in the imputed trip, and the **Time Length** field to get a good idea of when that trip took place.
3. Contact the vessel owner/operator to begin gathering information about the reason for the missing VTR, and to find out which dealer handled the catch from this trip.
4. If the Dealer report is missing, you can contact the dealer to find out what happened to the record for that transaction.

Sector Orphans

A "sector orphan" means that your sector has a record of a trip or sub-trip that NMFS does not have. See Figure 9 for an example of what the Sector Orphans sheet looks like.

Figure 9: Sector Orphans

See Table 7 immediately following for detailed explanation of each column in the Sector Orphans sheet.

Table 7: Sector Orphans Field Descriptions

Field	Description
Date_Sold	Sale date of this catch as reported by the dealer and recorded on the Sector Detail Report.
Vtrserno	Unique, eight-digit number in the top right portion of the first page of the VTR. Serves as universal trip ID. Could also be eVTR number.
Sdr_Stock_Id	Unique stock identifier as taken from the Stock Area field in the VTR and computed against the species-to-stock-area conversion table. Same as **Stock_id**.
Negear	3-character code to indicate the standard Northeast gear code used in the observer and commercial fisheries databases.
Mesh_Cat	Mesh category: • "ELM" = Extra Large Mesh (gillnet gear equal to or greater than 8 inches) • "LM" = Large Mesh (gillnet gear less than 8 inches) • "NA" = Not applicable (all other meshes) The VTR has the mesh size for each sub-trip.
Spplivlb	Live weight as recorded by the dealer.
Sdr_Docid	The Doc Id for the trip that was reported on the Sector Detail Report. Unique idenitfier for a trip, which may include one or more VTRs. eVTRs do not generate Sdr_Docids.
Sdr_Permit	The Vessel Permit Number (VPN) of the vessel that landed the fish as recorded on the Sector Detail Report. Vessel permit number assigned by the Northeast Regional Office's Vessel Permit System (VPS). Reserved VPNs include: • 000000=no permit or no vessel, check hull number; • 190998=Unknown undertonnage vessel; • 390998=Unknown tonnage vessel
Species_Itis	The 6-digit Integrated Taxonomic Information System (ITIS) serial number for a species. See the SPECIES_ITIS_NE table for a description of the codes.

How Do I Use the Sector Orphans Sheet?

There are several things to pay attention to when examining the Sector Orphans sheet.

- Sector Orphans records will parallel the results in the Landings Differences sheet because both reports show what NMFS does not have a record of.
- You can sort on **Sdr_Docid** to order the list by VTRs in ascending order. This way you can investigate on a trip or subtrip basis.

  NMFS may have erroneous data because, for example, the stock/species that the dealer reported to NMFS might be in error, or there could have been a VTR data entry error. These types of errors would cause an unwarranted addition to your ACE. The RTL Detail Report gives you the opportunity to discover possible errors and help ensure that they get fixed.

- The **Spplivlb** column shows live weight as recorded by the dealer. A value of "0" means that NMFS has no record of this catch, and most likely has not received the Dealer report.
- Bait/home consumption — Be aware that the dealer is not required to report certain categories of catch such as bait and home consumption, but sectors must include these "non-dealer" catch totals when computing the catch total for a trip.
- Gear/Mesh
  - A mismatch between the gear type and the mesh category creates a sector orphan.
  - All gear types except "gillnet" should have "NA" as the mesh type; otherwise, the record becomes a sector orphan.